Leave No Stone Unturned: A Human Capital Approach to Workforce Development

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"Knowledge – and the capacity to put knowledge to good use – is now the only dependable source of wealth all over the world."
— National Center on Education and the Economy

"Easily over half of all students don't have a clue why they are in school, and don't have a parent leading them down a path of success. The success of the lowest 50 percent is probably a better predictor of success in the knowledge economy than the success of the top 25 percent."
— Jim Hodges, president, edVantageonline.com (May 2, 2001)

"I came from a poor, rural immigrant family in Pittsburgh; neither set of my grandparents or my parents graduated from high school. There was little formal education in the family background but education was seen as important, second only to food on the table. It was drilled into our heads that an education enables one to have choices in the world. It's the family's value system, not just dollars that make the difference in school success."
— Catherine Elliott, director of technology business development, Memphis Area Chamber of Commerce (May 2, 2001)

Executive summary

The fundamental shift to an innovation-driven economy is creating a scarcity of skilled workers the world over. And it's not just a shortage of high-tech workers. The Bureau of Labor Statistics projects a 14 percent increase in U.S. job openings between 1998 and 2008, but labor force growth of only 12 percent over the same period.[i] Already, many communities feel the pinch. A few leaders are even thinking about recruiting workers from Latin America.[ii] The current economic slowdown might provide temporary relief from the worker shortage, but it will not resolve it.

The South may have special cause for concern. Census projections suggest a pronounced decline in the number of prime age Southern workers over the next 25 years, which, if true, could put a serious damper on growth. For now, the South is doing a good job attracting talent from other parts of the U.S. and world. It is also more successful than it was 30 years ago at keeping its young people in the region. But there are no guarantees this situation will continue, especially as other regions increase their efforts to grow good jobs and retain and attract skilled people. Moreover, it begs the question of whether the South is doing all it can to make the most of its existing human resources.

There are four basic ways the South could expand its supply of human capital, some of them controversial:

1. Build the skills of youth and incumbent workers.
2. Stop the leakage of people out of the labor market.
3. Increase domestic and foreign in-migration into the region.
4. Facilitate business relationships with overseas producers.

At present, most state workforce development strategies focus on the first method. Pursuing the other three options involves policy changes that go beyond education and training systems. It may require an entirely different approach, one that brings together business, government and civic leaders to remove complex barriers to work and upward mobility. It may also require outstanding leadership and public dialogue to resolve emotionally charged issues surrounding immigration and the globalization of production.

If the ultimate goal is to create a labor pool of appropriate talent and scale, then states may need to take a more comprehensive and outcome-oriented approach to workforce development. At present, most states divide up responsibility for workforce issues among a host of different departments and boards. A human capital approach may be more likely to overcome program segmentation and to reduce the non-educational barriers to workforce participation and worker productivity.

A human capital approach to workforce development is a fairly new concept, though a few states — Iowa, Indiana, Connecticut and Kentucky — are headed in that direction. The reason it hasn't come up much may be that most states have their plates full just reforming basic education and training. But it may also be because few have considered it as an option. Marjorie Bynum of the Information Technology Association of America agrees that a human capital approach to workforce development has merit, and observes, "Business is focused on the public school system right now because they don't know where else to begin." A human capital approach need not be an all-encompassing effort to improve every aspect of human capital — a commendable goal, but one so enormous that even the Scandinavian countries haven't mastered it.[iii] Rather, states might use the concept of human capital in a narrower exercise aimed at improving workforce readiness, availability, and upward mobility. A human capital approach might begin by answering questions such as:

- What is the profile of the South's future workforce, and how does it compare to job projections?
- What is the definition of a workforce?
- Where are we "leaking" workers and talent, and at what cost?
- How have other states and countries responded to workforce decline?
- How might one organize a strategic plan for human capital development?

This paper is designed to help start the conversation. It describes some of the forces that may change workforce demographics, and includes observations from leaders concerned with those trends. Next, it attempts to stretch the thinking of how we define the workforce, then points out key areas where human capital is leaking out of the system. Finally it summarizes the policy responses of several regions outside the South that have recently suffered a population shock. The paper concludes with suggestions for organizing the effort, pointing to innovative approaches taken by Kentucky, Connecticut, Indiana, Iowa, and North Carolina.

Introduction: Forces for change

During the past 20 years the South has been enormously successful in attracting both firms and skilled workers. But demographic shifts, the changing economy, and success itself may threaten to put the brakes on future economic growth. As a precaution, states may want to take a holistic approach to retaining, enhancing, and augmenting the workforce.

The aging of the workforce is a major issue for the South, as it is for the U.S. as a whole. The Bureau of Labor Statistics projects a 14 percent increase in U.S. job openings between 1998 and 2008, but labor force growth of only 12 percent over the same period. But four other trends point to a special vulnerability in the Southern workforce.

1. <u>Reliance on domestic in-migration</u>. Every year some three percent of the U.S. population moves to a different state, meaning a very large portion of adult Americans are living in a state other than the one where they were born.[iv] In recent history, a booming Southern economy has annually brought in over a million people from other parts of the United States, many of them young, college-educated and middle class.[v] The South has also lost close to a million people each year, but over the past decade net domestic in-migration has added up to a large number — over 2 million people between 1990 and 1998 in the Southern Growth Policies Board region. The net accumulation was concentrated in just a few states. Between 1990 and 1998, Georgia, North Carolina and Tennessee claimed 72 percent of the net gain in the region's domestic in-migration.[vi] (For the remainder of this paper, "the South" is defined as the member states of Southern Growth Policies Board: Alabama,

Arkansas, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Virginia and West Virginia.) Louisiana was the only Southern state to experience a net loss of residents to other states over the same period. (See Table 1.)

In-migration accounted for nearly 40 percent of the South's population growth between 1990 and 1998, versus less than zero for the non-South. (See Table 2.) Although retirees account for some this, many in-migrants are following new job growth. Compared to the rest of the nation, the South has relied disproportionately on the in-migration of prime age workers from other parts of the country to meet business demand for workers.

Domestic in-migration is clearly an asset, but it can also represent a vulnerability. The South's reliance on domestic in-migration may not be sustainable as other regions of the country grow rapidly and work harder at keeping people home. BellSouth's economist Thomas Schaap notes that the flow of Northerners into the South has already slowed. "We can't count any more on people moving in from Michigan or other Northern states," he says.[vii]

At the same time, unlike the rest of the country, the South's reservoir of children is expected to contract. (See Table 3.) In the next 25 years the number of children in the South under 18 years of age is projected to increase by only 3.5 percent, versus 17.1 in the non-South. This is a more pronounced trend in some states than others. It should be noted, however, that some immigration experts believe the Census data may severely under-estimate the presence of foreign-born populations in the South.[viii] BellSouth's Thomas Schaap agrees that immigrants may play an important role in keeping the South young. He notes that many recent immigrants are of childbearing age and tend to have more children. Still, for its nine-state region, BellSouth is projecting an increase in the number of children from birth to 14 years of only 0.7 percent annually for the next 10 years, below the 1.1 percent growth rate expected for the region's population as a whole.[ix]

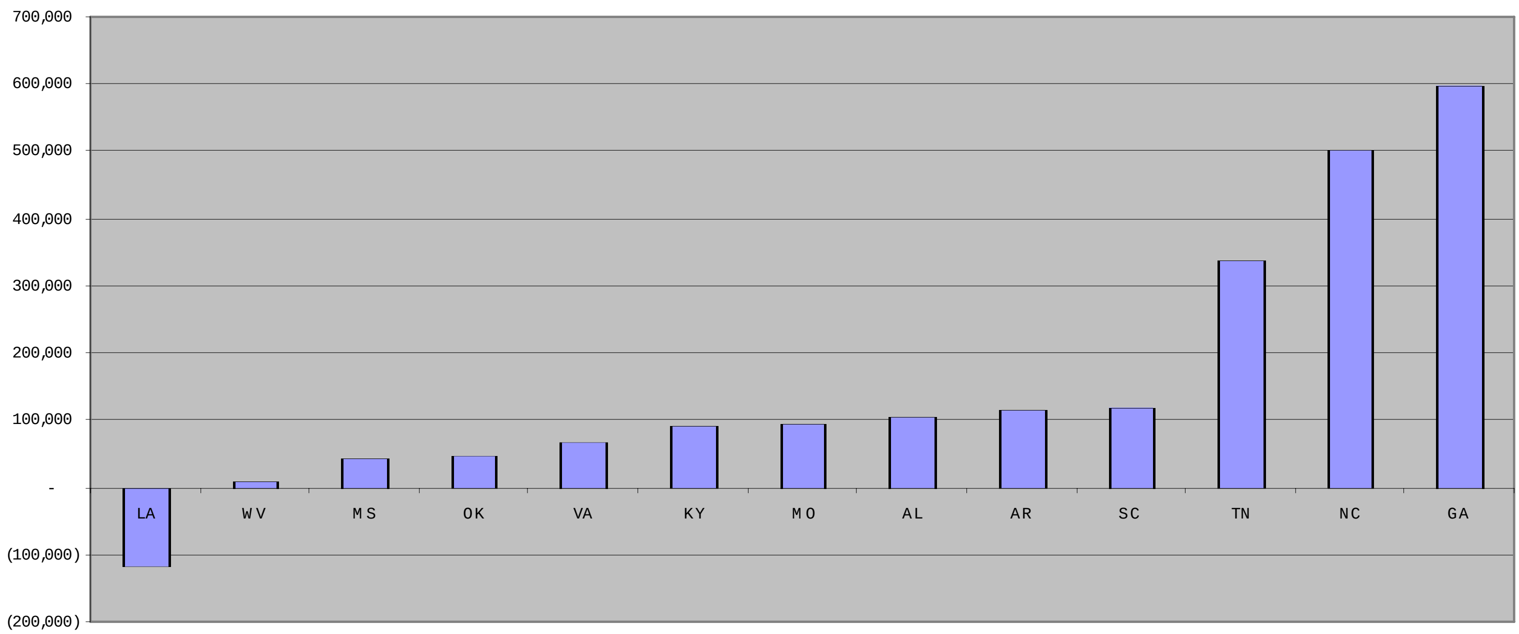
2. <u>Increasing reliance on foreign immigration</u>. In the face of declining domestic in-migration, BellSouth's Thomas Schaap believes that, "Labor shortages now are being filled with people from Latin America and Asia." Census figures would seem to confirm this, with growth rates for Hispanic and Asian populations almost double that for blacks or whites. (See table 4.)

This has made the Southern economy vulnerable to changes in immigration law that might restrict flows, and to other barriers that prevent recent immigrants from achieving their full potential. Some immigrants, for example, lack formal certifications to perform work for which they are qualified, anything from brick laying to doctoring. Language and culture barriers also hinder the smooth movement of talented immigrants into higher skill positions, and tight visa restrictions prevent some skilled immigrants from making lateral shifts, even within the same company. Transportation, too, is becoming a barrier for many immigrants; such is the case in Atlanta, where many live in neighborhoods poorly served by public transportation. (In many states, access to a driver's license is difficult without a Social Security number, making it hard for even legal residents to drive legally. Language and cultural barriers can also hinder immigrants from obtaining a license. In some cases, access even to a marriage license is dependent on having a Social Security number, thus depriving some immigrant women and children of the legal protections of marriage, not to mention social acceptance.)[x]

At the same time, other industrialized countries are stepping up their efforts to attract immigrants, which means the U.S. is no longer the only attractive option for skilled workers. Russia, faced with a severe population contraction, plans to encourage ethnic Russians living elsewhere in the former Soviet Union to move to Russia.[xi] Even countries like Mexico are beginning to experience labor shortages. Some firms are beginning to "raid" workers from north of the border to work back home in Mexico, especially experienced Mexican-born managers.[xii]

Table 1

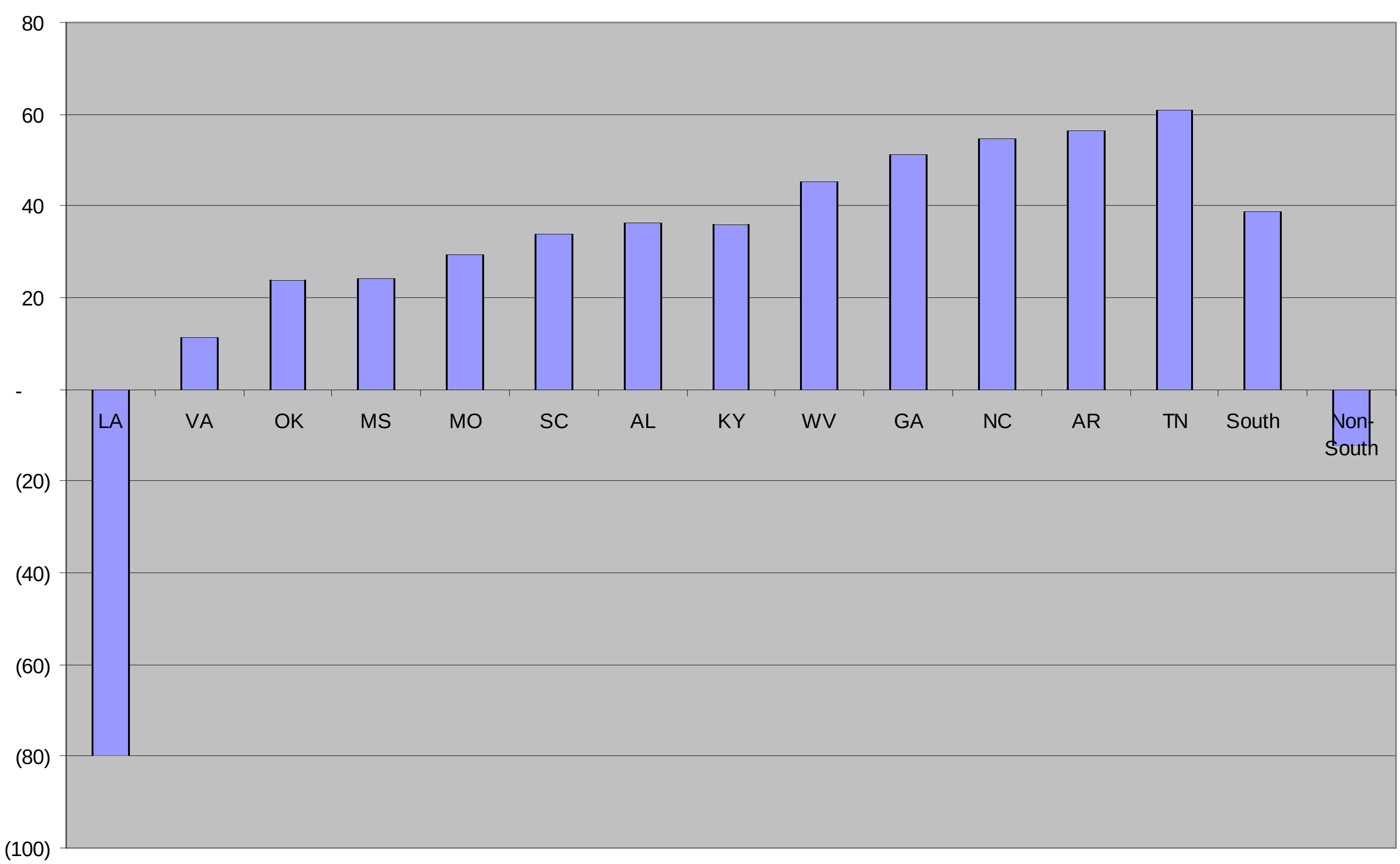
Net Domestic In-Migration, 1990-98



Source: Statistical Abstract of the United States, 1999

Table 2

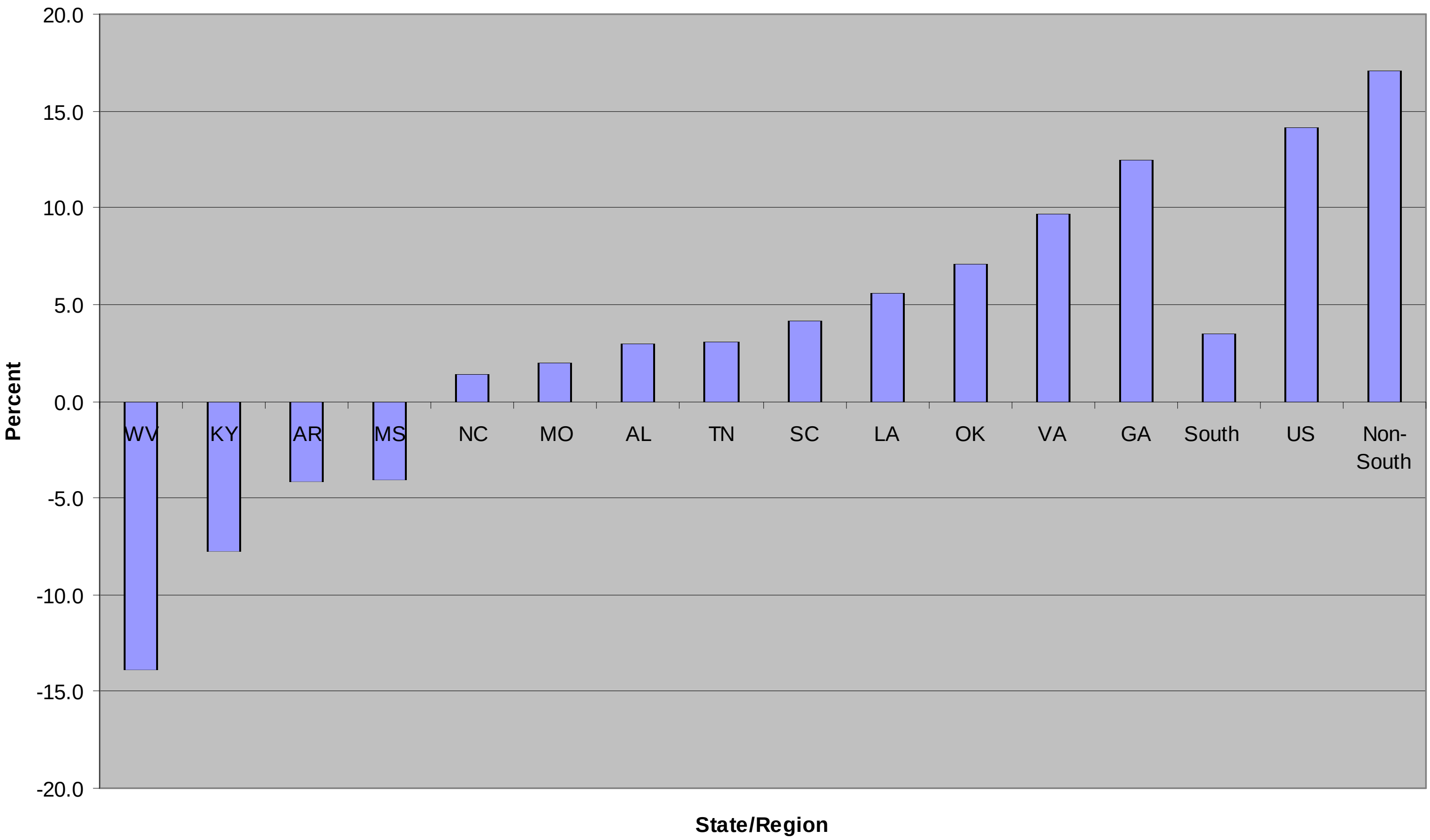
Percent of Population Change Accounted for by Domestic In-Migration, 1990-1998



Source: Statistical Abstract of the United States, 1999

Table 3

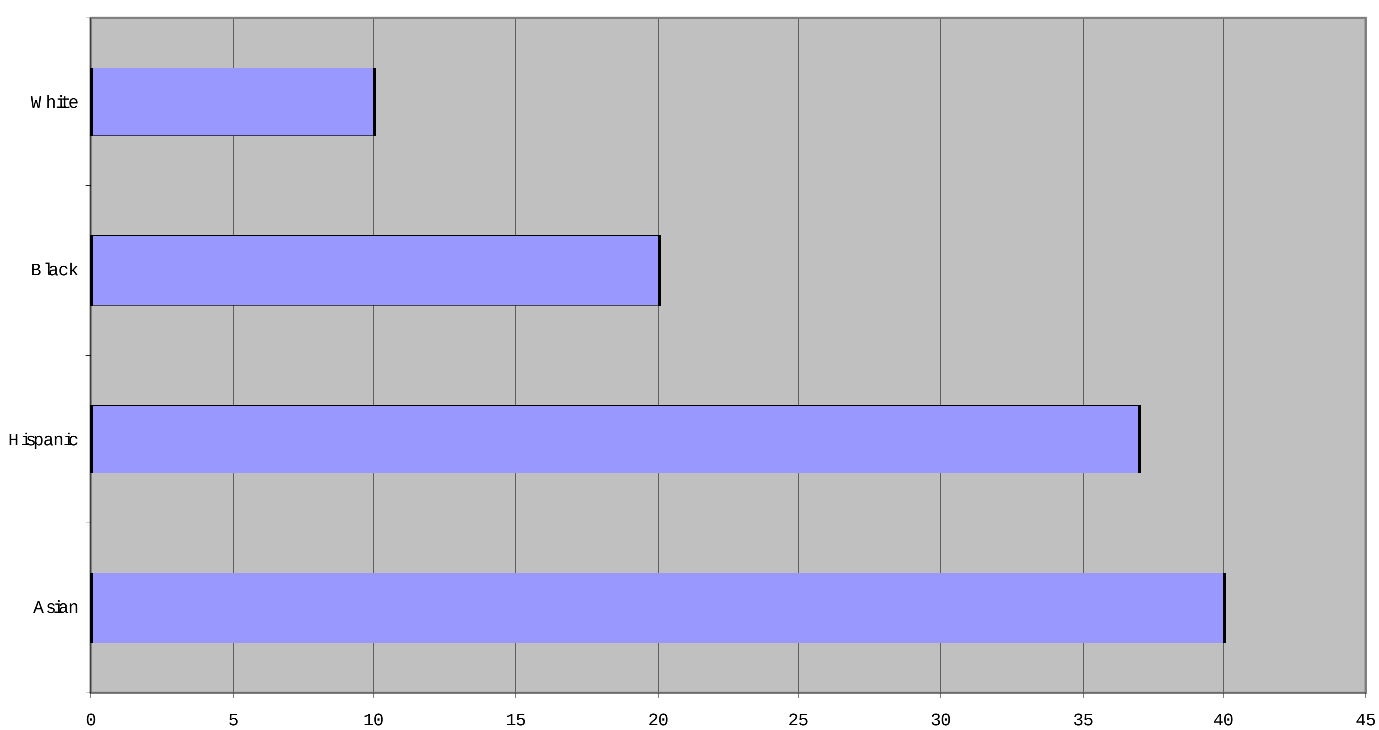
Percent Change in Numbers of Children, 2000-2025
(under 18 years old)



Source: Statistical Abstract of the United States, 1999

Table 4

U.S. Labor Force Growth, by Selected Category, 1998-2008



Source: Bureau of Labor Statistics Web Site

3. New skill demands from the innovation economy. Another vulnerability stems from the changing nature of work. Much of the South's success over the past 30-plus years has come from manufacturing, typically in the form of branch plant assembly operations. But as cut-and-sew apparel operations and other low-skill jobs have moved overseas, other manufacturing industries have moved into the region, such as auto production. While Southerners are often said to have an excellent work ethic, today's manufacturing requires more than commitment. It requires the skilled use of information technologies and teamwork, traits previously under-valued and, hence, not universally taught.

   At the same time, the vast majority of new jobs are being created in the service economy, not manufacturing. They involve moving concepts more than making things.[xiii] Intellect and entrepreneurship are the new cornerstones of competition. (Globalization is contributing to this trend by encouraging business specialization in areas where we out-perform the rest of the world — namely high-tech products and high-end services.) As such, the presence of unskilled workers is less apt to attract business investment. And although many Southern states have made progress upgrading education and skills, it may take one or more generations to bring educational attainment levels up to the national average. This educational deficit leaves the South increasingly vulnerable to economic change.

4. Rising costs and declining quality of life. The South has been able to attract firms and people by offering a lower cost environment and higher quality of life than can be found elsewhere in the United States. In many of the South's growth centers, however, the cost of living and cost of doing business are rising. John Robertson, an economist with the Federal Reserve Bank of Atlanta comments, "In the 1970s the South was an incredibly inexpensive place to live. Today it's more like the rest of the nation."[xiv]

   At the same time, in some locations the quality of life may be declining as traffic becomes more congested and as green space is lost to development. Although the South is still widely viewed as having major locational advantages (e.g., a nice climate, lots of opportunities for outdoor recreation, and right-to-work laws) the region's metropolitan living and business conditions are beginning to mirror those from northern climes.

   Both of these trends could have severe implications for those states seeking to build a knowledge-based economy. A recent paper prepared for the R.K. Mellon Foundation documents the high preference of knowledge workers for locations with excellent environmental and recreational amenities, "Knowledge workers essentially balance economic opportunity and lifestyle in selecting a place to live and work."[xv] Job openings, by themselves, will not necessarily be enough to attract knowledge workers.

The South faces some extraordinary challenges in creating a sustainable workforce — a challenge that may demand extraordinary policy measures. This paper will examine:

- The potential ramifications of a rapid fall in in-migration.
- Where the South is leaking human capital.
- How governments elsewhere have responded to population shock.
- Possible policy responses.

It is based on a series of interviews with economists, demographers and policy leaders from around the country, and concludes with a discussion of how a state might develop a comprehensive approach to workforce development. It recommends that states be pro-active and develop a human capital strategy to maximize their workforce potential.

Strange question for a new era: How do you define your workforce?

There was a time when the local workforce was virtually homegrown. But for some communities today, the workforce is almost unrecognizable from that of a generation ago. It is no longer easy to answer to the questions: "Who works for local firms," or "What is needed to make those workers more productive?"

The reason, according to a paper by the Hudson Institute, is that globalization and the Internet are producing "a global marketplace for many labor services, and thus the practical equivalent of worldwide labor mobility."[xvi] Therefore, in addition to native-born Southerners and other Americans who have moved to the South, the Southern workforce increasingly consists of:

- Immigrants.
- Foreign residents working for Southern-headquartered companies.
- Commuters and telecommuters working across borders.

Immigration is redrawing the profile of the Southern workforce. Early results from the 2000 Census show that roughly one in 10 people in America are foreign-born, a proportion not seen since the early 19th century. And, in major metropolitan areas such as Nashville and Charlotte, it is not uncommon to find that one in six residents are foreign-born, up from one in 25 just a decade ago.[xvii]

Foreign-born populations are often clustered in origin; rather than a random assortment of people from around the world, immigrants often follow others from their villages or regions to specific locations in the U.S. They come based on the success stories and encouragement of friends and relatives already there. Nashville, for instance, has a large concentration of Honduran immigrants. This affects Nashville's employers in four ways that workforce leaders rarely consider:

- In the face of unemployment rates below 3 percent, businesses are highly dependent on the Hondurans (and other immigrants) staying in the area. Sustaining their presence may mean taking deliberate measures to ease their transition into the local culture and to make them feel at home.

- The children of immigrants must be successful in school so they will grow into productive members of the future workforce. If foreign-born people account for at least a fifth of U.S. residents without a high school degree, then this suggests the need for a major, immediate rescue effort to prevent the same fate from occurring to their children.[xviii]

- The large presence of Honduran and other Hispanics means employers need to be prepared to conduct at least some level of business in Spanish.[xix] Spanish training for construction and other managers may be helpful in reducing workplace accidents and conflicts.

- Nashville businesses are directly affected by the economic and educational conditions in Honduras that drive immigration and determine the quality of workers who arrive. They are also affected by federal immigration policies that relate specifically to Hondurans let in on temporary visas following Hurricane Mitch. Business leaders in Nashville are becoming increasingly involved at the national level in advocating for better treatment of immigrant workers. Some policy makers are even considering efforts to actively recruit workers from overseas.[xx]

Similar interdependencies might be developing between local firms and overseas workers due to the increasing level of international exporting, out-sourcing, and joint venturing. The proportion of global production that is traded can serve as a proxy measure of the degree of global integration of production. The Hudson Institute notes that one quarter of world production was traded in 1970; today the figure is one-third and rising.[xxi] At a minimum, these globally active businesses rely on quality workers to represent them or work in their overseas affiliates. As such they may increasingly need to move personnel for purposes of training, product development, and management. Their success hinges on federal regulations governing cross-border movement, which currently involves extensive bureaucratic paperwork and delay. Removing barriers to global telecommunications and distance learning also become workforce development issues.[xxii]

And, just as immigrants tend to cluster in origin, some industrial sectors focus on a specific region of the world; the textile and apparel industry, for example, is becoming increasingly concentrated in the Caribbean. This makes it feasible for states to monitor and predict workforce trends more closely, if not affect them directly in some fashion through university relations or state-federal dialogue. Some public and private training providers are already starting to see the training of foreign workers as a profitable venture.[xxiii]

Finally, an even more challenging concept may be to consider whether a person who is on the payroll of an in-state firm but who commutes — or telecommutes — from another state or even a foreign country is also a part of the local workforce. For example, two of the 12 employees of the Southeastern University Research Association (SURA) did not want to leave their homes in upper state New York; they telecommute to SURA.[xxiv] Conversely, maybe residents that work for out-of-state firms should not be counted as part of the state's workforce. For example, Neverdahl-Loft, a fast growing computer-consulting firm based in Nebraska, employs only seven of its 100 employees locally; the rest are residents of 20 different states.[xxv] Should Southerners working for Neverdahl-Loft be considered part of the local workforce? Does it matter that the South partially underwrites the cost of training (through publicly funded education and training programs) if Neverdahl-Loft insists that their employees acquire new skills, such as a foreign language? Back in 1993, the U.S. Department of Transportation estimated that in 1992, 2 million workers telecommuted an average of one or two days per week. This amounts to 1.6 percent of the labor force. The agency further predicted that the number would rise to 10 percent of the labor force by 2002, while other sources put the figure at 25 million people by 2002.[xxvi] This suggests an interdependence of workforce development strategies between states, and even with foreign countries. It also suggests that as more firms out-source, including back office and engineering services, states may need to adapt their workforce strategies accordingly, if only to better predict demand for skilled workers.

While it's not clear where this leads in terms of state policies, it underscores that a growing number of firms are grappling with workforce issues at home and abroad that involve people other than American residents. The bottom line is there is a growing disconnect between a state's education and training systems and the people who work for the firms in that state.

Are we leaking human capital?

Lost human capital injures states and communities in three ways. First, people who are involuntarily out of work, or who are stuck in jobs below their potential, represent mismanagement of a scarce resource. Second, in many cases there are societal costs associated with lost human capital; for instance criminals are often not employed productively and are housed in prisons, where the annual cost of housing a single individual can average $50,000 per year.[xxvii] Third, skilled workers are siphoned off to care for those not working.

There are perhaps six major ways a state can lose human capital.

1. Out-migration.
   Every year the South loses thousands of talented graduates to jobs outside the region. Although the situation is improving as the South develops a critical mass of good-paying, highly skilled jobs, not all areas are able to offer the quality jobs needed to keep young workers home. But states may be able to take more strategic measures to keep talented youth. A recent study by the Southern Growth Policies Board's Southern Technology Council shows that states differ widely in the extent to which they retain individuals. "Far and away, the single most important predictor of individual retention is whether a person is a 'stayer,' that is, graduated from college in the same state where s/he went to high school." Looking at retention after college, "stayers" are the most likely (76 percent) to be working in the state where they received their degree, "leavers" are the least likely (24 percent), and "arrivers" (those who came from another state to attend college) are in between (43 percent).[xxviii]

2. Stranded assets: Jobs leaving company towns.
   In many small Southern towns, one company or one industry has been the chief source of non-farm jobs. When these plants shut down, people have few local employment alternatives. Many refuse to move to another

city where jobs are available because they have strong personal ties to the area or because they cannot sell their house. Studies of North Carolina apparel workers who lost their jobs in mass layoffs suggest that many older workers simply opt for early retirement.[xxix] Even in situations where a large pool of unemployed workers becomes available, there may be a lag of several years before a new firm moves in to take advantage of the idle human capital.

3. Accidents, illnesses and disabilities.

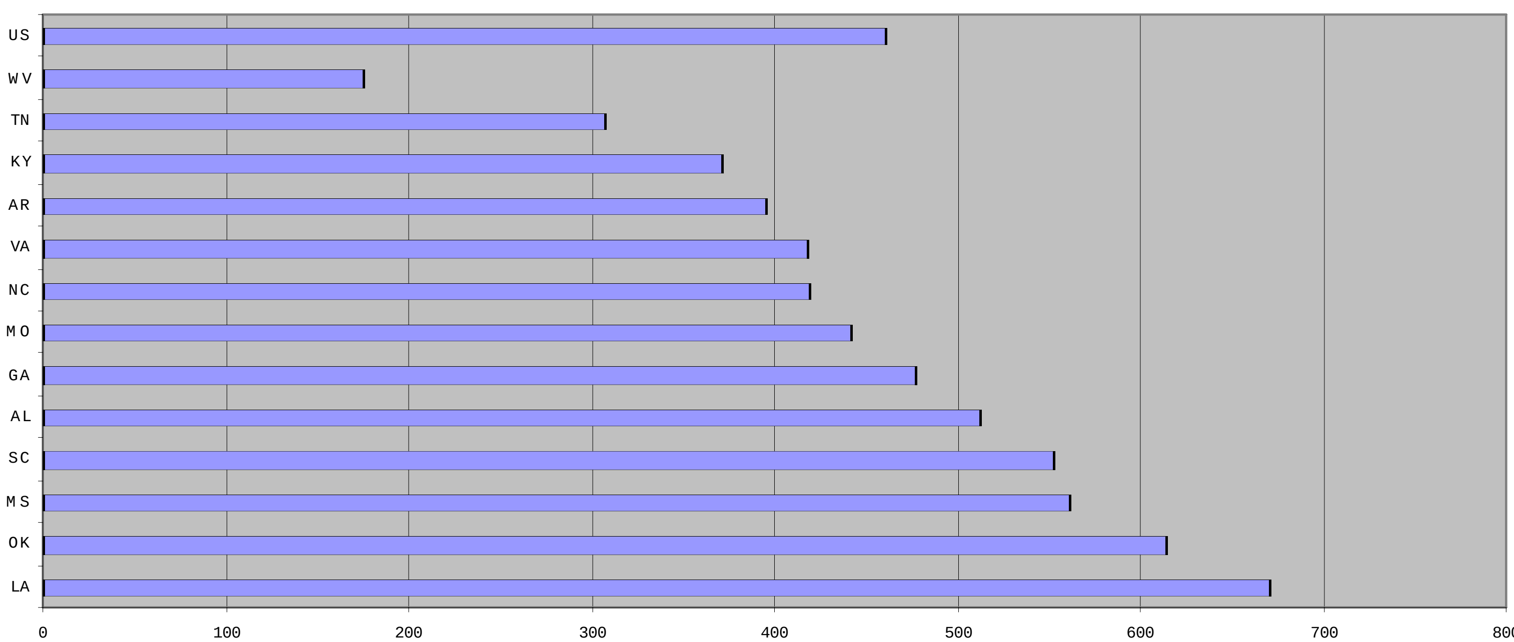
   There are some 54 million disabled Americans, roughly 20 percent of the US population.[xxx] Health and safety problems in the home, street and workplace rob individuals and their employers of productivity on the job and time at work. The total estimated cost of unintentional injuries in 1996, which includes estimates of lost future wages, was $444 billion. Of this, $121 billion is from workplace accidents alone.[xxxi] States already have agencies that work to reduce workplace hazards, and many other entities work to reduce problems in the home and community. Although much is already being done, it is possible that certain groups of new workers, including recent immigrants and post-retirement age workers, have unique health and safety needs that are not yet being met. For instance, in some places, efforts are being made to promote Spanish language learning in the construction industry as a way to reduce accidents among Hispanic workers.

4. Delinquency, incarceration, welfare.

   A staggering number of people are locked out of the workforce — literally and figuratively. State and federal prisons in the South held about 274,000 inmates in 1997, an average of 453 people per 100,000 residents and roughly double the number from a decade earlier. (See Table 5.)

Table 5

State and Federal Prisoners Per 100,000 Residents, 1997



Source: Statistical Abstract of the United States, 1999

Many in the court system have a history of social or mental health problems that can be traced back to troubles in their youth, troubles that also prevented them from succeeding in school, or even in acquiring the basic social skills needed to hold a menial job. Studies suggest that much can be done to prevent this loss of human capital, and probably at a reasonable cost.

One example comes from a recent study of youth in Durham, North Carolina, by Duke University's Center for Child and Family Policy. The study, which involved extensive analysis of local, state and national data, is relevant to many parts of the South since Durham is statistically much like any other medium-sized Southern town.[xxxii] The study found that some 73 percent of African-American males who enter public high school in the ninth grade are no longer enrolled there at graduation time. The authors estimate the real drop out rate to be closer to 50 percent since some boys will have moved or switched schools. Nevertheless, it harkens back to the 1970s when, nationally, the drop out rate for African-American males was 75 percent. (African American girls drop out at lesser, but still alarming rates — 33 percent fail to graduate.)

Where do these kids go? Some clearly take low-skill jobs. But the authors suspect the drop out rate is correlated to the arrest rate. In effect, a lot of the kids who disappear from the schoolhouse are transferring to the jailhouse. In 1997, more than one of every 50 Durham children were in juvenile custody. Although a majority of these children are in the juvenile court system for non-criminal reasons, such as foster care assignments, it signals deep trouble with the family structure.[xxxiii] Although only 46 percent of Durham's kids are African American, they make up 91 percent of those in custody. (Tellingly, the Bureau of Labor Statistics lists corrections officers as one of the fastest growing occupations between 1994 and 2005.[xxxiv])

How did this happen? The analysis suggests poverty, a high rate of child neglect, and a violent environment — characteristics predominantly found in African-American neighborhoods in Durham — account for much of the school failure, not the lack of opportunity to learn and get a good education. White kids in the very same schools, most of whom are middle class, are academically successful, with most going on to higher education. (The authors note race may be a factor too, but they point out that poor white kids, though relatively fewer in number, also fare badly in their educational outcomes.)

All this suggests that education and training reforms, alone, will not cure the workforce shortage. Rather, the Durham study suggests that much of the academic failure could be prevented through "a continuum of prevention and intervention programs that serve youth from birth through adolescence." At-risk families, the report continues, are rather easy to identify, and the more seriously troubled kids can be spotted by kindergarten. The cost of helping these families is far less than the cost of not helping them. According to the Center's director, Kenneth Dodge, the lifetime cost to society of a seriously delinquent child is estimated to be $1.4 million in court, incarceration and other costs. By contrast, studies of empirically tested programs suggest these kids can be turned around with services worth a few thousand dollars a year. The Center's own program of home visits to train parents and to tutor and mentor the children, delivered over a period of 10 years, costs about $5,000 per year. The report cited another program that could, "reduce abuse and neglect rates by 79 percent through the child's 15th year. Other long-term outcomes included fewer subsequent births, less use of welfare, and arrest rates 56 percent lower for the child at age 15. By the time children reached age 15, the cost savings were four times the original investment."[xxxv] Yet another program cited by the authors was able to cut the drop out rate in half over a four-year period at a cost of $2,600 per student per year.[xxxvi]

> "Across the region we spend about $70 billion a year in education and $6.9 billion in prisons. Yet, we invest less than $1 billion in early childhood development. To make a difference, we need to shift billions of dollars into high priority, high pay-off areas to improve child development."
>
> — *The 1998 Commission on the Future of the South*

Similarly, human capital is lost when young women drop out of school to have children they cannot support. Although recent changes in the welfare system limit stays on the welfare rolls, more efforts might be made to reduce teen pregnancy and to support women in acquiring jobs that can sustain themselves and their children.

5. Lack of certification for existing skills.
Competency without professional certification is an issue for many recent immigrants, but it is also an issue for American professionals, such as doctors or electricians, who have been certified in a state that is not part of a reciprocal recognition agreement. The current negotiations under way at the World Trade Organization to level the playing field in services trade may eventually help remedy this issue. In the meantime, some places, such as Nashville, are considering offering help to skilled immigrants in navigating the system to obtain certifications.

6. Retirement and other voluntary decisions to quit the workforce.
Women and retirees make up the bulk of those who voluntarily choose not to work. The Hudson Institute's report, *Workforce 2020*, points out that because "physical presence in a particular location at a particular time will become increasingly irrelevant, structural barriers to the employment of women and older Americans will continue to fall away."[xxxvii] To make it even easier for women and older people to stay on the job the report calls for business and public policies that allow for flexible working hours and environments, and for changes in Social Security, Medicare and tax laws that collectively act as a disincentive for those of retirement age to work. Increasing the participation of these would-be workers may also call for attention to other barriers to employment. For younger women, the biggest barrier is often the cost and quality of daycare. According to a report by the Southern Regional Task Force on Child Care, *Sound Investments*, childcare is the third largest expense for families with preschool-aged children (after housing and food). "In each of the Southern states examined, the annual cost of enrolling a 4-year-old in full-time child care actually exceeds the annual cost of public college tuition in that state. Yet, financial assistance for child care is much scarcer than financial aid for university students."

There are probably other ways workforce planners could organize an effort to stem the loss of human capital. States could instead, for instance, organize their efforts around specific categories of workers, by profession or by ethnicity, identifying their unique barriers and solutions to workforce participation.

A theoretical exercise: What are the consequences of a decline in in-migration?

In-migration has enabled the South to grow quickly by importing youth, talent, and a critical mass of consumers. While some might argue that in-migration has delayed the day of reckoning over deficiencies in Southern educational systems, there is no escaping the fact that the South and virtually all industrialized countries now face a skills shortage, which will likely increase in the near future. Europe had half a million information-technology (IT) job vacancies in 1998, and is expected to loosen immigration restrictions as the number of IT job vacancies balloons to 1.6 million in 2002.[xxxviii] This means rising global competition for IT workers.

Overseas competition for workers, plus the recent recoveries of U.S. regions that formerly sent droves of people to the South, makes it worth pausing for a moment to ask what would happen if workers stop moving to the South. The first step in preparing for such a possibility is to work through various scenarios. This paper will assume the South does not suffer an increase in out-migration, just a cessation or significant slowing of in-migration.

The major pressure points of an in-migration slowdown will be where investments are long term, or where industry is highly dependent on new arrivals. They are:

- School infrastructure.
- Residential and office construction.
- Transportation and distribution systems.
- Real estate prices and property taxes.
- Emerging economy businesses (dependent on in-migrants with high skills).
- Agriculture and personal services (dependent on lower skill foreign immigrants).

<u>Scenario 1: Job creation slows</u>
There are several reasons why the South's job-creation machine could falter. One is a recession. Another is a change in the business climate that depresses firms' earnings potential (e.g., rising costs or traffic congestion) and thus dis-

courages new investment. Still another possibility is a failure to innovate — firms that stand still are likely to be overwhelmed by external competitors. Any of those scenarios could trigger a drop-off in in-migration. The potential ramifications are:

- Continued demand for social services, such as schools, but fewer tax revenues to pay for them.
- Rising resentment over job competition with immigrants and other recent arrivals.
- Depressed real estate markets.
- Damage to consumer-driven industries, such as construction and utilities.

The difference between a soft and a hard landing would depend on:

(a) The duration and relative severity of the shock. A mild national recession, or a decline in business conditions to the level of northern locations might disappoint government and industry planners, but would be unlikely to cause severe economic or social disruptions. But if the South's growth centers became downright unattractive relative to other U.S. locations, or if the business base failed to gain access to R&D and other innovation support, then the Southern economy might spiral down until corrective actions were taken.

(b) The extent to which people outside the region have accurate information about job opportunities in the South. The South's image as a growth center could endure long after the reality has changed, subjecting the region to excess in-migration.

(c) Inflexible spending commitments. Major projects often involve one-time decisions that commit a public or private entity to multi-year funding, such as school construction or the wiring of neighborhoods. This makes it hard to trim spending in the face of falling consumer demand and declining revenues.

(d) Inflexible tax structures. Tax and fee structures may be even harder to adjust to meet increased demand for public services, particularly if the voting public does not share an understanding of the cause or if it perceives the expenditures are largely supporting unwanted newcomers.

(e) The ability of planners to anticipate a shift in the economy, and to mobilize a response. There can also be long lags before corrective actions take effect, such as education reform.

Scenario 2: People stop moving in

People might stop coming to the South despite job availability if the region suffers a relative decline in attractiveness. First, other regions may begin competing harder to keep their people home. This applies to both domestic and foreign migrants. Second, on the flip side, workers might also stay away if the South's cost of living rises, or quality of life falls, relative to other regions.

In either case the result of a slowing of in-migration could be:

- A surplus in the built environment, both public and private, where capacity was added on the basis of projections of continued growth.
- Slow or no growth in tax revenues.
- Reduced ability to attract or retain emerging industries.

The difference between a soft and a hard landing would depend on:

(a) The extent to which the South could recruit and prepare replacement workers, such as under-employed people within the region, people from overseas, or telecommuters from other parts of the country.

(b) Whether the major growth centers could increase their appeal to in-migrants.

(c) The speed of efforts to reverse deterioration in the living environment, or to boost attractiveness from current levels.

(d) The South's ability to direct job growth into under-developed areas (although this could be a short term fix if not handled carefully to avoid repeating the same mistakes).

(e) The ability of the South to boost its reputation as a place to live.

Note that either set of scenarios could have a dampening effect on retirement migration. Retirees may need fewer public services, but they may be more sensitive to changes in the cost of living.

How Other States and Countries Have Responded to Population Shocks

Connecticut

New England suffered a severe recession from 1989 to 1992. During this time, the region experienced a brain drain as workers left to find jobs. Although its experience is not directly comparable to what the South may face, Connecticut's response to hard times may be instructive.

Connecticut is constrained by high population density; it has 3.3 million people in an area smaller than the Florida panhandle. It went into recession later than the rest of the region, but came out of it later, too. The state lost one-third of its manufacturing jobs (since 1985) and was still losing population as late as 1997.

Although Connecticut's population today is still below what it was 10 years ago, the state and region have since made a full recovery. Indeed, the state is starting to create more jobs than it has people. Manufacturing output exceeds 1985 levels and the 150,000 jobs lost earlier in the decade have been regained. Unemployment is very low (one-third of firms report a severe worker shortage) and it leads the nation in productivity and per capita income, attributed by state analysts to the previous decades of large defense R&D spending, the presence of venture capital, and investments in higher education. The state may also have benefited from a change in its revenue structure; the introduction of an income tax in 1982 gave it a more balanced revenue stream with which to weather the recession.

Although the state's total population is no longer shrinking, the brain drain continues with Connecticut exporting more college freshmen than it brings in. One mitigating factor is the presence of some 300,000-400,000 people in three other states within 20 miles of Connecticut's borders. As jobs grow, people can easily commute in. However, many are thought to be Rhode Islanders coming for jobs in the casinos near their border — no real replacement for lost college graduates. At the same time, 40,000-60,000 Connecticut residents commute into New York City every day. The state's brain drain has probably been best mitigated

"You belong in Connecticut"

http://www.youbelonginct.com/

Last summer's marketing effort specifically targeted high school and college students, as well as young professionals — and followed an earlier campaign that was directed to in-state businesses. With a slogan designed to speak to residents and companies, both in-state and out-of-state, the annual *You Belong in Connecticut* campaigns are a continuing effort by the state to expand the workforce, help slow the "brain drain," and recruit and retain companies. The summer campaign sought to highlight the advantages of living and working in Connecticut. In addition to TV commercials, the multimedia summer campaign also included radio advertising, a Connecticut shoreline aerial banner, a contest, promotions at select Connecticut events, tie-ins to marketing campaigns from state agencies and other Connecticut organizations, and outreach to businesses. Even the utility companies sent notices about it out in their bills. "We view this marketing plan as essential to compete with other states that lure away our high school students for colleges and college graduates for jobs," says James F. Abromaitis, Commissioner of the State's Department of Economic and Community Development. Results from last year's efforts showed extraordinarily high awareness for a first-year campaign — 46.0 percent among high school students, 50.9 percent among college students and 42.5 percent among younger workers. The Web site also includes a job fair hosted by Monster.com and features live chats with key people (e.g., senate majority leader). The Web site links over smoothly to other agencies, such as the Department of Labor, which has clear buttons aimed at serving job seekers and youth.

by an influx of skilled workers from abroad. It attracted 68,000 foreign immigrants between 1990 and 1998 (compared to 141,000 resident births in excess of deaths). The state's leaders were active supporters of H1-B visa expansion.

The state is very focused on increasing high skill jobs and workers. Its strategies include:

- Increasing the productivity of the people who stay.
- A marketing campaign aimed at retaining students and firms by showcasing the state's high standard of living and other advantages. (See box on "*You belong in Connecticut*").
- A series of infrastructure investments valued at $771 million aimed at creating a quality of life appealing to the young (e.g., new stadium, riverfront development, convention center, etc.).
- Creation of a "jobs czar" in the governor's office, and a jobs cabinet, to coordinate all workforce issues.
- An industry "cluster" initiative that is private sector driven. This includes an inner-city component focused on bringing inner-city residents into the economic mainstream.

North Dakota

North Dakota is another state that has suffered a relatively large loss of population from the late 1980s through much of the 1990s. More than 4 percent of its people left between 1990 and 1998 — 30,000 out of a total population of 639,000. Again, the situation is not quite comparable to the South since some of the Plains states' population loss is due to the boom-bust cycles of agriculture and mining. State officials report that their out-migrants had higher incomes, and were younger, than those moving into the state. The state attracted only 4,500 immigrants over the same period.

In 1990 the state issued a report, *Vision 2000,* which called for "flagship initiatives" to build technology, entrepreneurship, education and training, exports, quality of life, etc. The report also recommended better economic information tracking systems and set goals to offset the decline in population. As a result of *Vision 2000,* the state launched "Growing North Dakota," the state's first bipartisan economic development legislation. They put $28 million into it in 1991, much for industrial recruitment programs. It hasn't worked out as well as hoped, partly because the commerce agency's budget has been cut in each of the past three biannual budgets. Officials hope a recent study commissioned from Economy.com will build support for restored funding. For now, the chief human capital strategy seems to be "build jobs and they will come."

Texas

Texas lost many people after the oil glut in the mid-1980s. According to state officials, falling oil revenues and federal tax law changes killed the state's construction boom, causing several hundred thousand workers to leave the state. Texas had no income tax and was forced to expand sales and other taxes. With over 80 percent of state revenues dedicated by state law, discretionary spending was especially squeezed in 1985 and 1986. The state came up with a strategic plan in 1987. A special commission set up two task forces — one to track economic trends and the other to do a SWOT (strengths, weaknesses, opportunities, threats) analysis. From this the commission came up with a set of strategies focused on innovation and entrepreneurship.

Texas is no longer losing population — it is exploding. Between 1990 and 1998 it grew by 16 percent, adding 2.8 million people. Over 40 percent of this growth came through immigration.

Michigan

Michigan lost about 2 percent of its population between 1980 and 1985 — nearly 200,000 people. According to one expert, many left the state to join the oil boom in Texas (perhaps only to be disappointed when the bottom fell out shortly after arriving). Others, including businesses, left to escape high taxes. By the time Gov. Engler took office in 1991 the state faced a billion dollar deficit.

Michigan responded by:

- Sharp cuts and reforms in the welfare system.
- Other budget cuts.
- Tax cuts — including a change in property tax laws that swept away $600 million in annual revenues.
- The addition of a business tax credit.
- Elimination of some 2,000 rules and regulations.

Still the state today still ranks about 45th in the real rate of economic growth, attributed by some to the state's rigid labor market rules. (Idaho, they pointed out, was in poor shape until it passed a right-to-work law in 1986. Since then, starting in 1987, the state has been in the top three in the nation in wage and job growth.)

The state's population had returned to earlier levels by 1990, and has continued to grow. Most of this was through net natural increase — immigrants accounted for only 18 percent of population growth between 1990 and 1998. The distribution of population has been an issue, however, since some funding formulas, both federal and some state, are tied to population size.

California

People poured into California until the end of the Cold War when defense cuts wiped out a lot of high paying jobs. The damage was focused in Southern California since that's where the aerospace and defense-related industries were concentrated. Between 1992 and 1996 there was a net out-migration of 1.5 million people. Although domestic out-migration was nearly matched by foreign immigration, the housing market was devastated. 1993 was seen as the worst year, when the state lost 1 percent of its population and unemployment was at its highest. The severe pain persisted for at least two more years.

In 1993 the governor launched the state's first-ever statewide, biennial economic development strategic planning effort. The bipartisan *California Economic Strategy Panel* was created to develop an overall economic vision for the new economy and a strategy to guide public policy toward a prosperous 21st century for all Californians. The governor's report said the focus should be on employability instead of employment, and it critiqued the state's training systems, saying the fragmented governance structure for job training and employment-related services was resulting in:

- Job training of uneven quality.
- An inability to meet the multiple service needs of clients.
- Duplicative and expensive administrative structures.
- Incompatible policies and procedures that impeded collaboration and effective service delivery.
- Fragmented planning that made it difficult to upgrade services in response to changing economic conditions.

It said there needed to be a greater emphasis on equal partnerships — not only of government with industry but also of companies with one another. Further, less emphasis should be on mandated relationships and greater emphasis on the need for individuals and organizations to cooperate voluntarily.

The report's recommendations focused on:

- Industry clusters.
- Education and training.
- Decentralization of government services.
- Creating a state research capacity to provide accurate, timely and detailed pictures of the economy and changes underway.

The governor also tried to attract companies back to California — recruitment was a new concept. To do so it added incentives and adjusted its corporate tax rates (which were the highest in the nation). In the meantime, the defense-related aerospace industry began to shift to private commercialization projects and the Bay area took off with the

Internet. The state is now attracting a lot of high-skilled people from India.

California may be an especially instructive case study since its demographics are suggestive of things to come for the rest of the nation. In the year 2010, three-fourths of California retirees will be Anglo while two-thirds of the workforce will be non-Anglo. Already, the majority of school-age children are other than white, and only 15 percent of California's 21-year-olds entering the workforce are Anglo males.

Europe

Since the early 1990s labor force growth in Europe has been running about half the pace of the U.S. A labor shortage is emerging, particularly in the United Kingdom, Ireland, Belgium, Hungary, and the Netherlands. Although perhaps a year behind the U.S. in this regard, a survey by Andersen Consulting showed that the EU's demand for IT workers outstrips supply by 600,000 people, and by 2003 the gap could grow to 2 million. One-third of EU firms surveyed said the skills shortage was seriously hindering their operations, versus 50 percent in the U.S.[xxxix] The article notes two key differences in the way the two regions are responding to the squeeze. First, Europe has been far less welcoming of immigrants to fill job vacancies, even for the least desirable positions. Second, some European countries are reforming their famously restrictive labor laws to encourage part-time and temp workers, a feature the U.S. already enjoys.

Ireland may start experiencing rapid in-migration in response to its hot economy. Previously Europe's economic basket case, Ireland's unemployment is less than 4 percent. But infrastructure is not keeping up, making housing very expensive. Ireland estimates it needs 200,000 foreign workers within the next five years — more than 10 percent the size of the present workforce. It is loosening immigration restrictions and is campaigning to repatriate those who have emigrated through an initiative called Jobs Ireland. Jobs Ireland's goal is to find 40,000 workers, including 2,500 nurses and 15,000 hotel and catering workers. Workers are deterred from returning, however, due to the high cost of living. Meanwhile, Britain and Germany have eased their own immigration restrictions.

How to organize a human capital approach to workforce development

Based on lessons learned from other states and regions, a proactive state might need the following tools:

- Good information and the ability to spot trends. Many state policy makers and researchers interviewed decried the lack of good, detailed information about the rapidly changing workforce and emerging economy. People felt information on immigrant demographics was particularly lacking. States could put in place a data collection and research program that tracks changes in all the components of the workforce, and analyzes them in the context of other moving targets, such as industry demand for skilled workers. Spotting trends early is critical since market responses can be lagged; for instance, it may take students four to six years to respond to a significant increase in pay in a shortage field.

- A human capital policy or vision statement. Understanding workforce dynamics, and setting goals could provide the clarity and unity of purpose needed to develop effective initiatives for workforce recruitment, retention, and productivity enhancement. A comprehensive strategy could help attract the right quality and quantity of in-migration and get the most from existing human talent. It is clear from the Durham study, cited above, that disconnected efforts to fix the schools and fix broken families will not be as successful as a connected, sustained effort.

- Rapid response tools. Some policy and program responses will require cross-jurisdictional alliances, or changes in funding. Given the long lag times involved, states may benefit from having in place the legal framework and planning teams needed to take quick and creative action.

- A collection of best practices. Connecticut isn't the only state that actively campaigns to keep native sons and daughters at home. Iowa has a similar initiative (www.smartcareermove.com). At present, there is no clearinghouse to record these or other initiatives, and thus states are left to re-invent the wheel or, worse still, repeat the mistakes of others before them. The Southern Growth Policies Board, which already serves as a clearinghouse for state international programs, may seek to fill this void for the workforce development field.

One way to focus state efforts would be through the creation of a department of workforce development. Such a moniker signals broader responsibilities. Kentucky, Indiana and Iowa have done just this. Kentucky's Department of Workforce Development works closely with related agencies and has been successful at spinning out creative new initiatives, such as a rapid response team that can send in a team of trainers plus equipment to any location for any length of time to fulfill a specific need. Iowa's is similarly in charge of coordinating other agency efforts, and is leading the effort to draft a "Unified State Plan" that articulates the state's vision of the future workforce, and goals for achieving that vision.[xl] One goal, for example, is to increase both the size and the skill level of the workforce. The plan also sets in motion a public-private process for identifying key industries facing skills shortages. For its part, Indiana created the Department of Workforce Development in 1991. Its commissioner has a background in economic development, and came to the job with concerns about the future impact of retirees and the loss of college graduates to other states. His department has since worked closely with related departments to develop strategies aimed at boosting incumbent worker mobility and at bringing marginalized populations into the workforce.[xli]

Most states currently divide up responsibility for workforce development among a host of different agencies.

Of course organizational charts don't matter as long as the job gets done, but program fragmentation is worrisome. According to MDC, a leading authority on workforce development that recently completed a study of Workforce Investment Act one-stop (JobLink) centers in North Carolina, success and failure seem to turn in large part on the willingness of the agencies to collaborate.[xlii] Although virtually everyone agrees to seamless service delivery in principal, as long as funding streams remain separate, with no accountability and rewards for results, there is nothing but the personal goodwill of individual program heads to cause them to work together in a seamless fashion.

A second way to approach the issue would be through the appointment of a human capital task force that is both interagency and public/private in composition, perhaps chaired by a "workforce czar," similar to Connecticut's approach. Possible subcommittees could include:

- Mobility — the ease with which workers can commute to their jobs, plus whether anything can (or should) be done to help people relocate to where the jobs are.
- Job transitions — how to make the state and region the easiest place to recover from losing a job, or to straddle work and retirement.
- Immigrants — what the barriers are for first and second-generation immigrants to working and to being a welcome, contributing member of the community.
- Race relations — laying the groundwork for avoiding tensions and eliminating cultural misconceptions.
- Retaining graduates — keeping college-educated kids in the state.
- Shortage sectors (e.g., nursing, IT) — focusing on key shortage areas.
- Leakage — identifying where potential workers are being lost to the system, and examining solutions from a business perspective.
- Functional literacy and life long learning — ensuring workers keep up with rising competency requirements.
- In-migration — looking at what it takes to keep the state and region attractive to those living elsewhere in the United States (e.g., cost of living and quality of life issues).

A third approach might be to adapt existing goal-setting and benchmarking efforts. The North Carolina Progress Board, for example, which was created by the North Carolina General Assembly in 1995 to set broad directions for the state, is charged with creating a detailed map toward meeting a vision of the state 20 to 30 years forward and measuring the state's progress in meeting those goals.[xliii] Two of its eight goals address workforce issues; a third addresses early childhood development. At present, however, the workforce benchmarks are mostly focused on skill building and school performance, though a few do address such matters as workplace safety and whether jobs pay a living wage. A human capital approach might suggest a different approach to, say, workplace safety. The goal could be restated as "reduce lost work time," which might direct the state to work on reducing accidents, regardless of their source, plus look at other factors that cause people to miss work, such as child care problems.

Regardless of the route, a human capital approach to workforce development requires the understanding and support of a broad cross-section of state leaders. It also takes courageous and creative leadership in both the public and private sectors. By most accounts, rising educational attainment for the masses and lifelong learning are going to take a tremendous increase in resources from somewhere. Businesses, which already feel stung by job-hopping following training, will be reluctant to invest without some guarantee of seeing a direct return on their investments. Low-income states may be in a particular bind — their pockets are empty, but without increased investments they will become less competitive, making it ever harder to attract or retain investment or skilled workers. Perhaps these states will be the ones to lead the way, as they did for other education reforms decades ago.

Perhaps the most compelling argument for taking a human capital approach to workforce development is the focus on a comprehensive strategic planning exercise using functional rather than agency goals and benchmarks. By this method, programs may be more likely to be held accountable to the governor and legislature for their ability to work as a team with others to deliver on the results.

Registered and specialty nurses and other health workers are in short supply the nation over. New York faces a particularly critical situation and is poised to take dramatic measures to combat a shortage that has spread throughout the state, even New York City. According to an article in *The New York Times*, hospitals, nursing homes, and private home care operators are experiencing their worst staffing shortage in decades. It is having a direct impact on patient care. Part of the shortage is attributable to a five-year drop in nursing enrollments, which suggests that nursing, like teaching, is no longer attractive in terms of pay. Nursing is also perceived as a physically and emotionally demanding job, and often thankless. Some of the decline in pay is traced back to cuts in Medicaid and Medicare reimbursements three years ago. But even if pay and job satisfaction were increased, there would still be a health care worker shortage since the nation is growing older and people are living longer. To address these problems, the New York State Health Department is considering spending "$80 million on a program to attract, train and subsidize poor New Yorkers who agree to work in health care."[xliv] Meanwhile, an official with the New York State Association of Health Care Providers frets, "We are just not sure the workers are out there." The Association has formed a private coalition on staffing problems. The coalition plans to lobby for increased federal reimbursement rates for Medicaid and Medicare, but will also start looking in nontraditional places for potential nurses and health aides, such as retired police officers and firefighters. It will also begin marketing efforts to attract young workers into the field.

Next steps

This paper is designed to serve as a background discussion piece for Southern Growth Policies Board's Council for a New Economy Workforce, an advisory body to the South's governors and other leaders that will be launched in the summer of 2001. Clearly a number of issue beg further analysis:

- How does the data in the 2000 Census change the projections used in this paper?
- What, precisely, is the nature of the predicted workforce shortage? How does this compare to projected job openings? Will there be shortages of workers to take both high- and lower-skill jobs?

- What are the educational and income levels of in-migrants and immigrants?
- What are some specific strategies and best practices for stopping the leakage of human capital?
- What is the trend in retirees leaving and re-entering the workforce?
- Are there creative models for expanding investments in education and training?

The author welcomes all comments and suggestions for improving the paper, or topics for future research by the council.

[i] "BLS releases new 1998-2008 employment projections," Bureau of Labor Statistics, November 1999 press release.

[ii] Garrett Harper of the Nashville Chamber indicated they were thinking about their options for bringing in more Honduran workers. We also got a request on Jan. 3, 2001, through David Schmelling of the Florida Association of Voluntary Agencies for Caribbean Action, to help Tom McGurk, a workforce policy advisor for Gov. Jeb Bush, think of ways to recruit technical workers from Latin America.

[iii] From an e-mail conversation with Joan Wills, Institute for Education Leadership, Dec. 12, 2000, immediately following an OECD conference on Life Long Learning as an Affordable Investment.

[iv] 1998 U.S. Statistical Abstract, "Mobility Status of the Population, by Selected Characteristics: 1980 to 1997," Table No. 32, page 32.

[v] 1998 U.S. Statistical Abstract, "Annual Inmigration, Outmigration, and Net Migration for Regions: 1980 to 1997," Table No. 31, page 32. Note their definition of the Southern region includes Florida and Texas, states not part of the Southern Growth region.

[vi] The demographic data do not include Puerto Rico since the Census Bureau tracks it separately and in a noncomparable format.

[vii] From a phone interview with Thomas Schaap, Dec. 18, 2000.

[viii] E-mail correspondence with Garrett Harper, director of research, Nashville Chamber of Commerce, Nov. 10, 2000.

[ix] From a phone interview with Thomas Schaap, Dec. 18, 2000. BellSouth's nine-state region includes Alabama, Florida, Georgia, Kentucky, North Carolina, Louisiana, Mississippi, South Carolina, and Tennessee.

[x] From a phone interview with Thomas Schaap, Dec. 18, 2000.

[xi] From "The Global Intelligence Update," produced by Stratfor.com as an email newsletter, Dec. 21, 2000

[xii] Rolf Rykken, "Work in Progress," *Global Business* magazine, Export Today, March 2001, page 36.

[xiii] Speech by J. Mac Holiday to the Alabama International Trade Conference (9-29-00).

[xiv] Phone interview with John Robertson, Dec. 19, 2000.

[xv] Richard Florida, "Competing in the Age of Talent: Environment, Amenities, and the New Economy," R.K. Mellon Foundation, January 2000.

[xvi] Alan Reynolds, "The Coming E-Commerce Boom," *American Outlook,* spring 1999, page 33.

[xvii] Nashville's Business Community Responds to Immigration," Clearinghouse on State International Policies, fall 2000, page 9.

[xviii] Richard W. Judy and Carol D'Amico, *Workforce 2020: Work and Workers in the 21st Century*, The Hudson Institute, August 1999, page 131.

[xix] Removing language barriers is becoming especially important in light of new federal regulations that mandate translation services in public programs whose service area includes a critical mass of people speaking a given language.

[xx] Garrett Harper of the Nashville Chamber indicated they were thinking about their options for bringing in more Honduran workers. And according to Jane M. Lommel, a workforce consultant to the Hudson Institute, Austin, Texas, and Tampa, Florida, are also undertaking efforts to attract people from India and China to work in their areas. We also got a request on Jan. 3, 2001, to help Tom McGurk, a workforce policy advisor for Gov. Jeb Bush, think of ways to recruit technical workers from Latin America.

[xxi] Richard W. Judy and Carol D'Amico, *Workforce 2020: Work and Workers in the 21st Century*, The Hudson Institute, August 1999, page 23. The authors projected the share to be 50 percent by 2000 and 65 percent by 2020, but that is an overstatement. Probably only a third of global output is traded. Specifically, of the $29.4 trillion the world produced in 1997, roughly $4 trillion was exported and $4 trillion was imported, or about 28 percent. This share is likely to go up with increasing global integration of production.

[xxii] In 1999 employers spent $1.1 billion on online training. Merrill Lynch projects it will be $11 billion by 2003.

[xxiii] From discussions with Kentucky educators (Chancellor Keith Bird and President Mike McColl) at the Governor's Conference on Latin America, Louisville, Jan. 8-10, 2001.

[xxiv] From presentation by Jerry Draayer, president of SURA, Jan. 19, 2001. SURA is headquartered in Washington, D.C., and serves a network of some 50 southern research institutions.

[xxv] Jack Lyne, "All Dressed Up With No One to Grow?," cite uncertain (*SS* electronic magazine), 2001.

[xxvi] Richard W. Judy and Carol D’Amico, *Workforce 2020: Work and Workers in the 21st Century*, The Hudson Institute, August 1999, page 58.

[xxvii] From a conversation with Tom Dugard, president of Triangle (N.C.) United Way, May 15, 2001.

[xxviii] Louis G. Tornatzky, Denis O. Gray, Stephanie A. Tarant, Cathy Zimmer, *Who Will Stay, Who Will Leave: Individual, Institutional, and State-Level Predictors of State Retention of Recent Science and Engineering Graduates*, Southern Growth Policies Board, May 2001.

[xxix] Michael I. Luger, Lucy Gorham, Brian Kropp, “Worker Dislocation in North Carolina: Anatomy of the Problem and Analysis of the Policy Approaches,” University of North Carolina, October 1999.

[xxx] Josh McHugh, “A Healthy Niche Market,” *Forbes*, Feb. 26, 2001.

[xxxi] “Costs of Unintentional Injuries,” *U.S. Statistical Abstract*, 1999.

[xxxii] “State of Durham’s Children 2000,” Center for Child and Family Policy, Duke University, July 1, 2000.

[xxxiii] In 1997, Durham had 52,000 children, including babies. Of these, 1,219 were in juvenile custody programs. Triangle United Way President Tom Dugard said most of these children are in custody for non-criminal reasons (May 15, 2001).

[xxxiv] Richard W. Judy and Carol D’Amico, *Workforce 2020: Work and Workers in the 21st Century*, The Hudson Institute, August 1999, page 78.

[xxxv] “State of Durham’s Children 2000,” Center for Child and Family Policy, Duke University, July 1, 2000, page 9.

[xxxvi] “State of Durham’s Children 2000,” Center for Child and Family Policy, Duke University, July 1, 2000, page 10.

[xxxvii] Richard W. Judy and Carol D’Amico, *Workforce 2020: Work and Workers in the 21st Century*, Hudson Institute, August 1999, page 2.

[xxxviii] *Globalisierung in Europa*, International Labor Organization, December 2000.

[xxxix] According to a report in *Export Today’s Global Business* November magazine,

[xl] Iowa Unified State Plan, March 2000, draft version taken from the Web site http://www.state.ia.us/government/wd/index.html.

[xli] From phone interview with Jennifer Biddle, Indiana Department of Workforce Development, Jan. 17, 2001.

[xlii] From an interview with Sam J. Scott, at MDC in Chapel Hill, Feb. 7, 2001. The MDC report is “North Carolina JobLink Career Center Feedback: An Appraisal of Progress,” published October 2000.

[xliii] See its Web site at: http://www.ncpb.state.nc.us/.

[xliv] Jennifer Steinhauer, “Shortage of Health Care Workers Keeps Growing,” *The New York Times*, Dec. 25, 2000, Page A1.